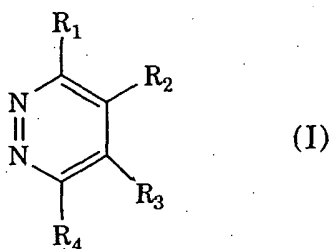


WHAT IS CLAIMED IS:

1. A compound of the formula (I) or a pharmaceutically acceptable salt thereof:



wherein

R₁ is halogen, aromatic ether, alkyl sulfonate, aryl sulfonate, alkyl phosphonate, aryl phosphonate, alkyl phosphate or aryl phosphate;

10 R₂ is COOR₅, C(=O)NH(CHR₅)_m-COOR₅, NH(CHR₅)_mCON(R₅)R₆, C(=O)N(R₅)R₆ or NH(CHR₅)_m OH;

R₃ is H or alkyl;

R₄ is H, substituted or unsubstituted aryl, heteroaryl or alkyl;

15 R₅ and R₆ are independently H, lower alkyl, aryl, hydroxy alkyl, amio alkyl, heteroaryl, lower alkylene-aryl, lower alkylene-heteroaryl or lower cycoalkyl; and m is 0-6.

2. The compound of claim 1 wherein said aryl is phenyl, naphthyl or substituted phenyl.

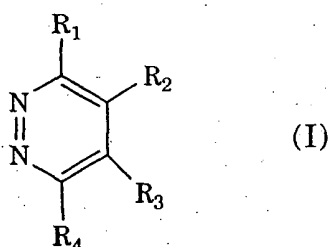
20

3. The compound of claim 2 wherein said phenyl is substituted by halo, lower alkyl, nitro, amino, acylamino, hydroxyl, lower alkoxy, trifluoromethyl, alkyl sulfonyl, morpholinoethoxy or morpholino-sulfonyl.

25

4. The compound of claim 1 wherein said heteroaryl is pyridyl, thienyl, furyl, thiazolyl, imidazolyl, pyrazolyl, triazinyl, quinolyl or isoquinolyl.

5. The compound of claim 1 selected from the group consisting of: 3-Chloro-4-carboxamido-6-(4-pyridyl)pyridazine, 3-Chloro-4-carboethoxy-6-(4-pyridyl)pyridazine, 3-Chloro-4-carboxamido-6-(3-pyridyl)pyridazine, 3-Chloro-4-carboxamido-6-(4-bromophenyl)pyridazine and 3-Chloro-4-carboxamido-6-(4-trifluoromethylphenyl)pyridazine.
6. The compound of claim 1 selected from the group consisting of: 3-Chloro-4-carboxamido-6-(3,5-dichlorophenyl)pyridazine, 3-Chloro-4-carboxamido-6-(2-naphthyl)pyridazine, 3-Chloro-4-carboxamido-6-(4-nitrophenyl)pyridazine, 3-Chloro-4-carboxamido-6-(4-cyanophenyl)pyridazine and 3-Chloro-4-carboxamido-6-(2-pyrazyl)pyridazine
7. The compound of claim 1 selected from the group consisting of: 3-Chloro-4-carboxamido-5-methyl-6-(4-chlorophenyl)pyridazine, 3-Chloro-4-(2,4-dichlorobenzylaminocarbonyl)-6-(4-pyridyl)pyridazine, 3-Chloro-4-[(C-ethoxy)glycyl]carbonyl)-6-(4-pyridyl)pyridazine, 3-Chloro-4-(2,4-dichlorobenzylaminocarbonyl)-6-[4-(3-chloro)pyridyl]-pyridazine and 3-Chloro-4-carboxamido-6-[4-(p-toluenesulfonamido)phenyl]-pyridazine.
8. The compound of claim 1 selected from the group consisting of: 3-Chloro-4-carboxamido-6-(4-quinolyl)pyridazine, 3-Chloro-4-carboxamido-6-(phenyl)pyridazine, 3-Chloro-4-carboxamido-6-(4-methoxyphenyl)pyridazine, 3-Chloro-4-carboxamido-6-[3,5-difluoro-4(methylsulfonyl)phenyl]pyridazine, 3-Chloro-4-carboxamido-6-[3-fluoro-4(methylsulfonyl)-5-(methoxy)-phenyl]-pyridazine, 3-Chloro-4[(phenylalanylcarbamido)-carbonyl]-6-(4-chlorophenyl)pyridazine and 3-Chloro-4-carboxamido-6-(3-chloro-4-fluorophenyl)pyridazine.
9. A pharmaceutical composition for inhibiting interleukin-1 β protease comprising the formula (I) or a pharmaceutically acceptable salt thereof



wherein

R₁ is halogen, aromatic ether, alkyl sulfonate, aryl sulfonate, alkyl
 5 phosphonate, aryl phosphonate, alkyl phosphate or aryl phosphate;
 R₂ is COOR₅, C(=O)NH(CHR₅)_m-COOR₅, NH(CHR₅)_mCON(R₅)R₆,
 C(=O)N(R₅)R₆ or NH(CHR₅)_m OH;

R₃ is H or alkyl;

R₄ is H, substituted or unsubstituted aryl, heteroaryl or alkyl;

10 R₅ and R₆ are independently H, lower alkyl, aryl, hydroxy alkyl,
 amio alkyl, heteroaryl, lower alkylene-aryl, lower alkylene-heteroaryl
 or lower cycoalkyl; and m is 0-6 in a pharmaceutically acceptable
 carrier.

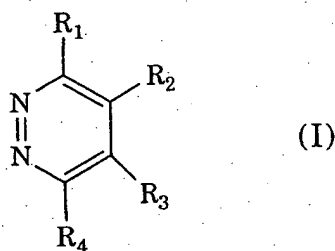
15 10. The pharmaceutical composition of claim 9 wherein said compound
 is selected from the group consisting of: 3-Chloro-4-carboxamido-6-
 (4-pyridyl)pyridazine, 3-Chloro-4-carboethoxy-6-(4-pyridyl)pyridazine,
 3-Chloro-4-carboxamido-6-(3-pyridyl)pyridazine, 3-Chloro-4-
 carboxamido-6-(4-bromophenyl)pyridazine and 3-Chloro-4-
 20 carboxamido-6-(4-trifluoromethylphenyl)pyridazine.

11. The pharmaceutical composition of claim 9 wherein said compound is
 selected from the group consisting of: 3-Chloro-4-carboxamido-6-(3,5-
 dichlorophenyl)pyridazine, 3-Chloro-4-carboxamido-6-(2-naphthyl)-
 25 pyridazine, 3-Chloro-4-carboxamido-6-(4-nitrophenyl)pyridazine, 3-
 Chloro-4-carboxamido-6-(4-cyanophenyl)-pyridazine and 3-Chloro-4-
 carboxamido-6-(2-pyrazyl)pyridazine

12. The pharmaceutical composition of claim 9 wherein said compound is selected from the group consisting of: 3-Chloro-4-carboxamido-5-methyl-6-(4-chlorophenyl)pyridazine, 3-Chloro-4-(2,4-dichlorobenzylaminocarbonyl)-6-(4-pyridyl)pyridazine, 3-Chloro-4-[(C-ethoxy)glycyl]-carbonyl)-6-(4-pyridyl)pyridazine, 3-Chloro-4-(2,4-dichlorobenzylaminocarbonyl)-6-[4-(3-chloro)pyridyl]-pyridazine and 3-Chloro-4-carboxamido-6-[4-(p-toluenesulfonamido)phenyl]- pyridazine.

13. The pharmaceutical composition of claim 9 wherein said compound is selected from the group consisting of: 3-Chloro-4-carboxamido-6-(4-quinolyl)pyridazine, 3-Chloro-4-carboxamido-6-(phenyl)pyridazine, 3-Chloro-4-carboxamido-6-(4-methoxyphenyl)pyridazine, 3-Chloro-4-carboxamido-6-[3,5-difluoro-4(methylsulfonyl)phenyl]pyridazine, 3-Chloro-4-carboxamido-6-[3-fluoro-4(methylsulfonyl)-5-(methoxy)-phenyl]-pyridazine, 3-Chloro-4[(phenylalanylcarbamido)-carbonyl]-6-(4-chlorophenyl)pyridazine and 3-Chloro-4-carboxamido-6-(3-chloro-4-fluorophenyl)pyridazine.

14. A method of inhibiting interleukin-1 β protease activity in a mammal in need of such treatment comprising administering to said mammal an effective inhibitory amount of a pharmaceutical composition comprising a compound of the formula (I) or a pharmaceutically acceptable salt thereof:



wherein

R₁ is halogen, aromatic ether, alkyl sulfonate, aryl sulfonate, alkyl phosphonate, aryl phosphonate, alkyl phosphate or aryl phosphate;

R₂ is COOR₅, C(=O)NH(CHR₅)_m-COOR₅, NH(CHR₅)_mCON(R₅)R₆,
C(=O)N(R₅)R₆ or NH(CHR₅)_m OH;

R₃ is H or alkyl;

R₄ is H, substituted or unsubstituted aryl, heteroaryl or alkyl;

5 R₅ and R₆ are independently H, lower alkyl, aryl, hydroxy alkyl,
amio alkyl, heteroaryl, lower alkylene-aryl, lower alkylene-heteroaryl
or lower cycoalkyl; and m is 0-6 in a pharmaceutically acceptable
carrier.

10 15. The method of claim 14 wherein said compound is selected from the
group consisting of: 3-Chloro-4-carboxamido-6-(4-pyridyl)pyridazine,
3-Chloro-4-carboethoxy-6-(4-pyridyl)pyridazine, 3-Chloro-4-
carboxamido-6-(3-pyridyl)pyridazine, 3-Chloro-4-carboxamido-6-(4-
15 bromophenyl)pyridazine and 3-Chloro-4-carboxamido-6-(4-
trifluoromethylphenyl)pyridazine.

16. The method of claim 14 wherein said compound is selected from the
group consisting of: 3-Chloro-4-carboxamido-6-(3,5-
dichlorophenyl)pyridazine, 3-Chloro-4-carboxamido-6-(2-naphthyl)-
20 pyridazine, 3-Chloro-4-carboxamido-6-(4-nitrophenyl)pyridazine, 3-
Chloro-4-carboxamido-6-(4-cyanophenyl)-pyridazine and 3-Chloro-4-
carboxamido-6-(2-pyrazyl)pyridazine

25 17. The method of claim 14 wherein said compound is selected from the
group consisting of: 3-Chloro-4-carboxamido-5-methyl-6-(4-
chlorophenyl)pyridazine, 3-Chloro-4-(2,4-dichlorobenzyl-
aminocarbonyl)-6-(4-pyridyl)pyridazine, 3-Chloro-4-[(C-ethoxy)glycyl]-
carbonyl)-6-(4-pyridyl)pyridazine, 3-Chloro-4-(2,4-dichlorobenzyl-
aminocarbonyl)-6-[4-(3-chloro)pyridyl]-pyridazine and 3-Chloro-4-
30 carboxamido-6-[4-(p-toluenesulfonamido)phenyl]- pyridazine.

18. The method of claim 14 wherein said compound is selected from the
group consisting of: 3-Chloro-4-carboxamido-6-(4-
quinolyl)pyridazine, 3-Chloro-4-carboxamido-6-(phenyl)pyridazine,

5 3-Chloro-4-carboxamido-6-(4-methoxyphenyl)pyridazine, 3-Chloro-4-carboxamido-6-[3,5-difluoro-4(methylsulfonyl)phenyl]pyridazine, 3-Chloro-4-carboxamido-6-[3-fluoro-4(methylsulfonyl)-5-(methoxy)phenyl]-pyridazine, 3-Chloro-4[(phenylalanylcarbamido)-carbonyl]-6-(4-chlorophenyl)pyridazine and 3-Chloro-4-carboxamido-6-(3-chloro-4-fluorophenyl)pyridazine.